

REMARKS/ARGUMENTS

In response to the above-identified Office Action, Applicants respectfully request reconsideration in view of the aforementioned amendment and the following remarks.

Applicants amend claim 12 to include a second heat source and submit that no new matter is added therein as amendments to claim 12 are supported at least at feature 230 of FIG. 2 and paragraph 35; feature 510 of FIG. 5 and paragraph 63; and block 725 of FIG. 7 and paragraph 73 of the application as filed. Hence, Applicants respectfully request reconsideration of the pending amended claims.

I. Claim Objections

Claim 12 is objected to because of informalities. Applicants amend claim 12 to indicate that there are two heat sources, such as, without limitation thereto, shown by sources 270 and 230 of FIG. 2 and described in paragraphs 32-38. Hence, Applicants respectfully request withdrawal of the objection above.

II. Claim Rejections - 35 USC § 102

The Examiner rejects Claims 6-7, 10-12, 25, 27-28 under 35 U.S.C. 102(a) as being anticipated by U.S. Publication No. 2003/0062149 to Goodson et al. ("Goodson"). Claims 6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,547,130 to Eastman et al. ("Eastman"). Applicants reserve the right to attribute any invention disclosed but not claimed in Sauciuc, in accordance with MPEP § 716.10. It is axiomatic that to be anticipated every limitation of a claim must be disclosed in a single reference.

Applicants disagree with the rejection above of claim 6 for at least the reason that the references do not disclose "orienting a pump or a compressor without regard to a gravitational location of a heat source coupled to the pump or compressor; determining a presence of a threshold amount of fluid that is within a pump or a compressor; and condensing vapor of the fluid as it is present in the pump or evaporating liquid of the fluid as it is present in the compressor", as required by amended claim 6.

Embodiments described in the specification of the present application, without limitation thereto, describe orienting a pump or a compressor without regard to a gravitational location of a heat source coupled to the pump or compressor; determining a presence of a threshold amount of

fluid within pump 110 or compressor 210; and condensing vapor of the fluid as it is present in pump 110 or evaporating liquid of the fluid as it is present in compressor 210 (see FIGs. 1 and 2 of the application).

Goodson teaches an electroosmotic pump that is able to recapture evolved gas and deposited materials to provide for long term closed loop operation (see paragraph 27), such as by using a catalytic recombiner having a catalyst to recombine hydrogen gas and oxygen gas that floats or rises up to the catalyst (see paragraphs 81, 83 and 175). Thus, oxygen bubbles generated at an electrode are driven by buoyancy forces, and hydrogen bubbles are also driven up into recombining chamber 312 by buoyancy to recombine to form water (see paragraph 83). Consequently, although channels 328 are positioned circumferally around the pumping structure to allow gas access from cathode chamber 312a into chamber 312b, such that hydrogen gas does not get trapped within chamber 312a when pump 300 is oriented at a tilt with respect to gravity, it is a principle of operation of Goodson that pump 300 must be oriented so that the oxygen and hydrogen bubbles are able to float upwards into a recombiner (e.g. recombiner 326) to be recombined (see paragraphs 81-83, 142, 164 and 174-177; FIGs. 2, 9B, 10-11, and 15).

In addition, Goodson teaches the principle of operation of restraining hydrogen gas from passing through the cooling loop, such as would occur if pump 300 were oriented without regard to a gravitational location of a heat source (see paragraph 173-174).

Consequently, Goodson cannot teach and does not describe the above noted limitations of claim 6.

In addition to being dependent upon allowable claim 6 Applicants disagree with the rejection of claim 28 for at least the reason that Goodson does not disclose that the fluid is within a compressor and the compressor is a vapor compressor to force the vapor through a system, as required by claim 28.

By teaching the principle of operation of restraining hydrogen gas from passing through the cooling loop, Goodson teaches against having gas bubbles or vapor within the cooling lines (see paragraph 173, lines 14-19 and paragraph 174, lines 7-11). Consequently, Goodson cannot teach and does not describe the above noted limitations of claim 28.

Next, applicants note that Eastman also fails to teach or disclose the above noted limitations of independent claim 6. Eastman teaches a liquid condensation device that works regardless of the absence of gravity (see column 1, lines 27-35). Thus, the primary purpose of

Eastman is to build a liquid collection device that feeds liquid condensation to a pump to facilitate the collection of liquid condensed from vapor in gravity free satellite system applications, where collection is required without the aid of gravity (see column 1, lines 33-36 and 67-68; and independent claims 1, 10 and 11). Consequently, Eastman teaches away from orienting without regard to a gravitational location as claimed in claim 6, by requiring the absence of gravity.

III. Claim Rejections – 35 USC § 103

The Patent Office rejects claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Eastman in view of U.S. Publication No 2003/0205364 to Sauciuc et al. (“Sauciuc”).

In addition, by including the claimed orienting a pump or a compressor without regard to a gravitational location of a heat source coupled to the pump or compressor, embodiments described in the specification of the present application, for example, without limitation thereto, provide the unexpected benefits of overcoming the problems generally associated with the orientation of pumps or compressors within a system (see at least paragraphs [0004]-[0007], [0056] and [0063] of the application; FIG. 1 showing a liquid pump located above a heat source of the system with respect to gravity, and FIG. 2 showing a vapor compressor located below a heat source of the system with respect to gravity). However, the cited references do not describe the claim limitations noted above, or any of these resulting benefits.

Any dependent claims not mentioned above are submitted as not being anticipated or obvious, for at least the same reasons given above in support of their base claims as well as any limitations of these dependent claims.

Hence, Applicants respectfully request the Patent Office withdraw all of the rejections above.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

Dated:

02/04/09


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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted to the United States Patent and Trademark Office electronically via EFS Web on the date shown below.


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02/04/09

Date